



Edge Energy, LLC

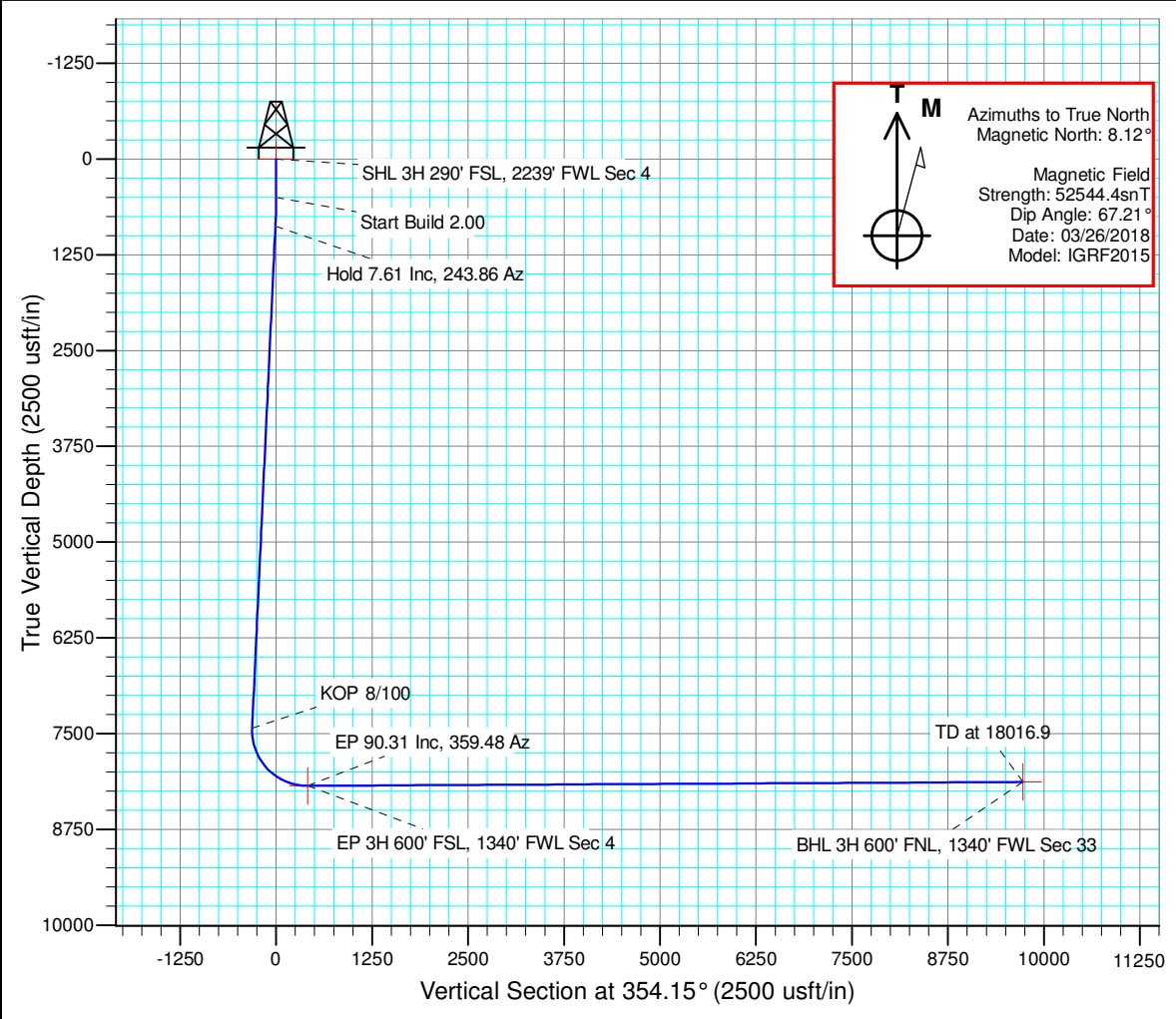
Well Name: <b>Deporter 4-33-3H</b>	Project Name: <b>Sec. 4-T10N-R65W</b>	Pad Name: <b>Deporter 4-B</b>
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ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
500.0	500.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00
879.5	880.6	7.61	243.86	-11.1	-22.7	-8.8	25.2	Hold 7.61 Inc, 243.86 Az
7430.3	7489.7	7.61	243.86	-396.9	-808.6	-312.4	900.8	KOP 8/100
8182.0	8659.5	90.31	359.48	321.0	-906.3	411.8	1641.8	EP 90.31 Inc, 359.48 Az
8132.0	18016.9	90.31	359.48	9677.9	-991.9	9728.6	10999.1	TD at 18016.9

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL 3H 290' FSL, 2239' FWL Sec 4	0.0	0.0	0.0	1555868.45	3229913.34	40° 51' 22.600 N	104° 40' 7.978 W
BHL 3H 600' FNL, 1340' FWL Sec 33	8132.0	9677.9	-991.9	1565536.64	3228830.74	40° 52' 58.224 N	104° 40' 20.892 W
EP 3H 600' FSL, 1340' FWL Sec 4	8182.0	321.0	-906.3	1556180.99	3229004.09	40° 51' 25.772 N	104° 40' 19.772 W

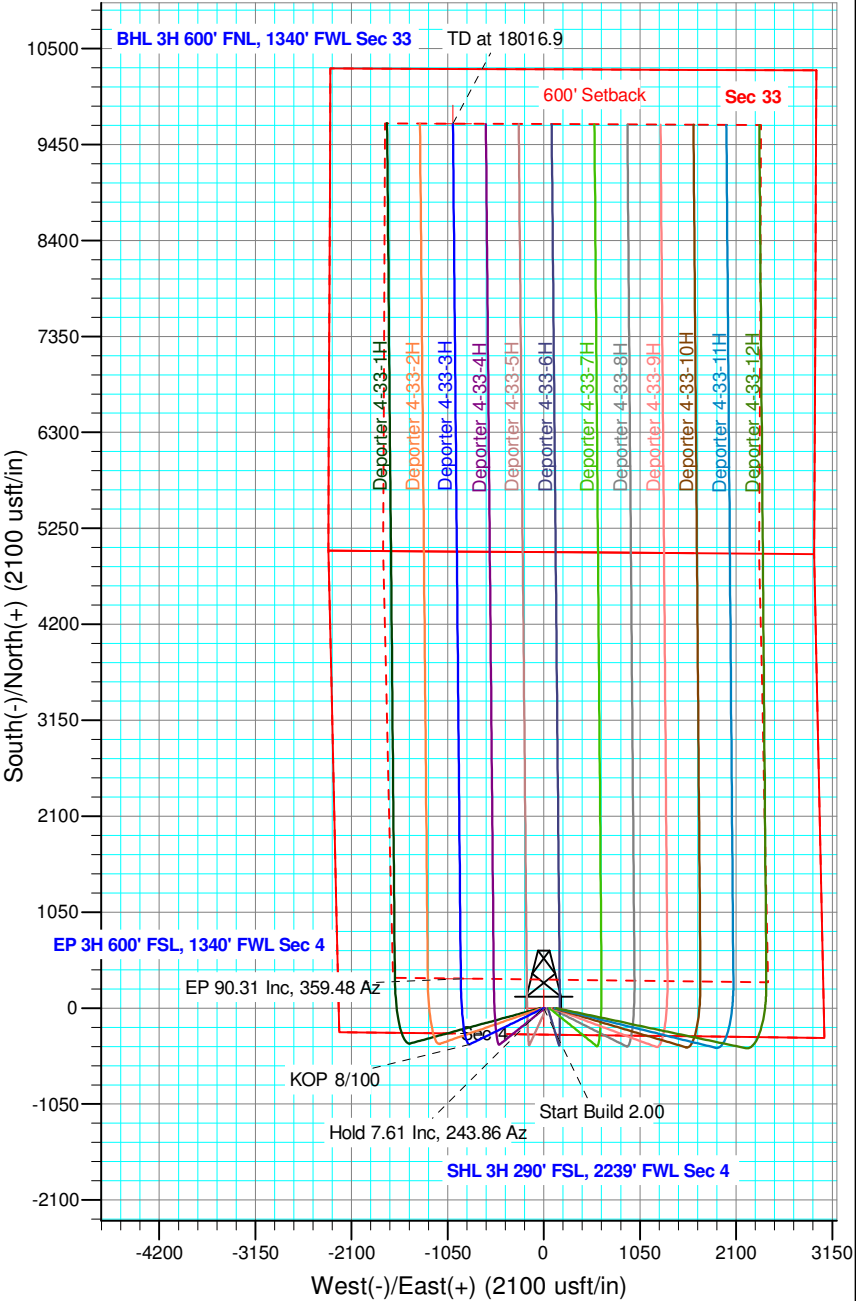


Geodetic Datum:

North American Datum 1983  
US State Plane 1983, Colorado Northern Zone

Elevation:

Ground Elevation: 5397.0  
WELL @ 5412.0usft (Original Well Elev)





## **Edge Energy, LLC**

**Sec. 4-T10N-R65W**

**Deporter 4-B**

**Deporter 4-33-3H**

**Wellbore #1**

**Plan: Design #1 26Mar18 mnh**

## **Standard Planning Report - Geographic**

**26 March, 2018**



## Planning Report - Geographic

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 4-33-3H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 4-33-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 26Mar18 mnh		

<b>Project</b>	Sec. 4-T10N-R65W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		Deporter 4-B			
Site Position:		Northing:	1,555,868.53 usft	Latitude:	40° 51' 22.603 N
From:	Map	Easting:	3,229,883.39 usft	Longitude:	104° 40' 8.368 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.54 °

Well		Deporter 4-33-3H				
Well Position	+N/-S	0.0 usft	Northing:	1,555,868.45 usft	Latitude:	40° 51' 22.600 N
	+E/-W	0.0 usft	Easting:	3,229,913.34 usft	Longitude:	104° 40' 7.978 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,397.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	03/26/18	8.12	67.21	52,544

<b>Design</b>	Design #1 26Mar18 mnh			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	354.15

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
880.6	7.61	243.86	879.5	-11.1	-22.7	2.00	2.00	0.00	243.86	
7,489.7	7.61	243.86	7,430.3	-396.9	-808.6	0.00	0.00	0.00	0.00	
8,659.5	90.31	359.48	8,182.0	321.0	-906.3	8.00	7.07	9.88	115.39	EP 3H 600' FSL, 134(
18,016.9	90.31	359.48	8,132.0	9,677.9	-991.9	0.00	0.00	0.00	0.00	BHL 3H 600' FNL, 134(

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 4-33-3H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 4-33-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 26Mar18 mnh		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	1,555,868.45	3,229,913.34	40° 51' 22.600 N	104° 40' 7.978 W	
100.0	0.00	0.00	100.0	0.0	0.0	1,555,868.45	3,229,913.34	40° 51' 22.600 N	104° 40' 7.978 W	
200.0	0.00	0.00	200.0	0.0	0.0	1,555,868.45	3,229,913.34	40° 51' 22.600 N	104° 40' 7.978 W	
300.0	0.00	0.00	300.0	0.0	0.0	1,555,868.45	3,229,913.34	40° 51' 22.600 N	104° 40' 7.978 W	
400.0	0.00	0.00	400.0	0.0	0.0	1,555,868.45	3,229,913.34	40° 51' 22.600 N	104° 40' 7.978 W	
500.0	0.00	0.00	500.0	0.0	0.0	1,555,868.45	3,229,913.34	40° 51' 22.600 N	104° 40' 7.978 W	
Start Build 2.00										
600.0	2.00	243.86	600.0	-0.8	-1.6	1,555,867.67	3,229,911.78	40° 51' 22.592 N	104° 40' 7.999 W	
700.0	4.00	243.86	699.8	-3.1	-6.3	1,555,865.32	3,229,907.11	40° 51' 22.569 N	104° 40' 8.060 W	
800.0	6.00	243.86	799.5	-6.9	-14.1	1,555,861.41	3,229,899.32	40° 51' 22.531 N	104° 40' 8.162 W	
880.6	7.61	243.86	879.5	-11.1	-22.7	1,555,857.12	3,229,890.78	40° 51' 22.490 N	104° 40' 8.273 W	
Hold 7.61 Inc, 243.86 Az										
900.0	7.61	243.86	898.7	-12.3	-25.0	1,555,855.97	3,229,888.49	40° 51' 22.479 N	104° 40' 8.303 W	
1,000.0	7.61	243.86	997.8	-18.1	-36.9	1,555,850.02	3,229,876.65	40° 51' 22.421 N	104° 40' 8.458 W	
1,100.0	7.61	243.86	1,096.9	-23.9	-48.8	1,555,844.07	3,229,864.82	40° 51' 22.363 N	104° 40' 8.613 W	
1,200.0	7.61	243.86	1,196.1	-29.8	-60.6	1,555,838.12	3,229,852.98	40° 51' 22.306 N	104° 40' 8.768 W	
1,300.0	7.61	243.86	1,295.2	-35.6	-72.5	1,555,832.17	3,229,841.14	40° 51' 22.248 N	104° 40' 8.922 W	
1,400.0	7.61	243.86	1,394.3	-41.4	-84.4	1,555,826.22	3,229,829.30	40° 51' 22.190 N	104° 40' 9.077 W	
1,500.0	7.61	243.86	1,493.4	-47.3	-96.3	1,555,820.27	3,229,817.47	40° 51' 22.132 N	104° 40' 9.232 W	
1,600.0	7.61	243.86	1,592.5	-53.1	-108.2	1,555,814.33	3,229,805.63	40° 51' 22.075 N	104° 40' 9.387 W	
1,700.0	7.61	243.86	1,691.7	-59.0	-120.1	1,555,808.38	3,229,793.79	40° 51' 22.017 N	104° 40' 9.541 W	
1,800.0	7.61	243.86	1,790.8	-64.8	-132.0	1,555,802.43	3,229,781.96	40° 51' 21.959 N	104° 40' 9.696 W	
1,900.0	7.61	243.86	1,889.9	-70.6	-143.9	1,555,796.48	3,229,770.12	40° 51' 21.902 N	104° 40' 9.851 W	
2,000.0	7.61	243.86	1,989.0	-76.5	-155.8	1,555,790.53	3,229,758.28	40° 51' 21.844 N	104° 40' 10.006 W	
2,100.0	7.61	243.86	2,088.1	-82.3	-167.7	1,555,784.58	3,229,746.45	40° 51' 21.786 N	104° 40' 10.160 W	
2,200.0	7.61	243.86	2,187.2	-88.1	-179.6	1,555,778.64	3,229,734.61	40° 51' 21.729 N	104° 40' 10.315 W	
2,300.0	7.61	243.86	2,286.4	-94.0	-191.5	1,555,772.69	3,229,722.77	40° 51' 21.671 N	104° 40' 10.470 W	
2,400.0	7.61	243.86	2,385.5	-99.8	-203.4	1,555,766.74	3,229,710.94	40° 51' 21.613 N	104° 40' 10.625 W	
2,500.0	7.61	243.86	2,484.6	-105.7	-215.2	1,555,760.79	3,229,699.10	40° 51' 21.556 N	104° 40' 10.779 W	
2,600.0	7.61	243.86	2,583.7	-111.5	-227.1	1,555,754.84	3,229,687.26	40° 51' 21.498 N	104° 40' 10.934 W	
2,700.0	7.61	243.86	2,682.8	-117.3	-239.0	1,555,748.89	3,229,675.42	40° 51' 21.440 N	104° 40' 11.089 W	
2,800.0	7.61	243.86	2,782.0	-123.2	-250.9	1,555,742.95	3,229,663.59	40° 51' 21.383 N	104° 40' 11.244 W	
2,900.0	7.61	243.86	2,881.1	-129.0	-262.8	1,555,737.00	3,229,651.75	40° 51' 21.325 N	104° 40' 11.398 W	
3,000.0	7.61	243.86	2,980.2	-134.8	-274.7	1,555,731.05	3,229,639.91	40° 51' 21.267 N	104° 40' 11.553 W	
3,100.0	7.61	243.86	3,079.3	-140.7	-286.6	1,555,725.10	3,229,628.08	40° 51' 21.210 N	104° 40' 11.708 W	
3,200.0	7.61	243.86	3,178.4	-146.5	-298.5	1,555,719.15	3,229,616.24	40° 51' 21.152 N	104° 40' 11.863 W	
3,300.0	7.61	243.86	3,277.6	-152.3	-310.4	1,555,713.20	3,229,604.40	40° 51' 21.094 N	104° 40' 12.017 W	
3,400.0	7.61	243.86	3,376.7	-158.2	-322.3	1,555,707.26	3,229,592.57	40° 51' 21.037 N	104° 40' 12.172 W	
3,500.0	7.61	243.86	3,475.8	-164.0	-334.2	1,555,701.31	3,229,580.73	40° 51' 20.979 N	104° 40' 12.327 W	
3,600.0	7.61	243.86	3,574.9	-169.9	-346.1	1,555,695.36	3,229,568.89	40° 51' 20.921 N	104° 40' 12.482 W	
3,700.0	7.61	243.86	3,674.0	-175.7	-357.9	1,555,689.41	3,229,557.06	40° 51' 20.864 N	104° 40' 12.637 W	
3,800.0	7.61	243.86	3,773.1	-181.5	-369.8	1,555,683.46	3,229,545.22	40° 51' 20.806 N	104° 40' 12.791 W	
3,900.0	7.61	243.86	3,872.3	-187.4	-381.7	1,555,677.51	3,229,533.38	40° 51' 20.748 N	104° 40' 12.946 W	
4,000.0	7.61	243.86	3,971.4	-193.2	-393.6	1,555,671.56	3,229,521.54	40° 51' 20.691 N	104° 40' 13.101 W	
4,100.0	7.61	243.86	4,070.5	-199.0	-405.5	1,555,665.62	3,229,509.71	40° 51' 20.633 N	104° 40' 13.256 W	
4,200.0	7.61	243.86	4,169.6	-204.9	-417.4	1,555,659.67	3,229,497.87	40° 51' 20.575 N	104° 40' 13.410 W	
4,300.0	7.61	243.86	4,268.7	-210.7	-429.3	1,555,653.72	3,229,486.03	40° 51' 20.518 N	104° 40' 13.565 W	
4,400.0	7.61	243.86	4,367.9	-216.6	-441.2	1,555,647.77	3,229,474.20	40° 51' 20.460 N	104° 40' 13.720 W	
4,500.0	7.61	243.86	4,467.0	-222.4	-453.1	1,555,641.82	3,229,462.36	40° 51' 20.402 N	104° 40' 13.875 W	
4,600.0	7.61	243.86	4,566.1	-228.2	-465.0	1,555,635.87	3,229,450.52	40° 51' 20.344 N	104° 40' 14.029 W	
4,700.0	7.61	243.86	4,665.2	-234.1	-476.9	1,555,629.93	3,229,438.69	40° 51' 20.287 N	104° 40' 14.184 W	
4,800.0	7.61	243.86	4,764.3	-239.9	-488.8	1,555,623.98	3,229,426.85	40° 51' 20.229 N	104° 40' 14.339 W	
4,900.0	7.61	243.86	4,863.4	-245.7	-500.7	1,555,618.03	3,229,415.01	40° 51' 20.171 N	104° 40' 14.494 W	
5,000.0	7.61	243.86	4,962.6	-251.6	-512.5	1,555,612.08	3,229,403.18	40° 51' 20.114 N	104° 40' 14.648 W	



## Planning Report - Geographic

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 4-33-3H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 4-33-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 26Mar18 mnH		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,100.0	7.61	243.86	5,061.7	-257.4	-524.4	1,555,606.13	3,229,391.34	40° 51' 20.056 N	104° 40' 14.803 W	
5,200.0	7.61	243.86	5,160.8	-263.3	-536.3	1,555,600.18	3,229,379.50	40° 51' 19.998 N	104° 40' 14.958 W	
5,300.0	7.61	243.86	5,259.9	-269.1	-548.2	1,555,594.24	3,229,367.66	40° 51' 19.941 N	104° 40' 15.113 W	
5,400.0	7.61	243.86	5,359.0	-274.9	-560.1	1,555,588.29	3,229,355.83	40° 51' 19.883 N	104° 40' 15.267 W	
5,500.0	7.61	243.86	5,458.2	-280.8	-572.0	1,555,582.34	3,229,343.99	40° 51' 19.825 N	104° 40' 15.422 W	
5,600.0	7.61	243.86	5,557.3	-286.6	-583.9	1,555,576.39	3,229,332.15	40° 51' 19.768 N	104° 40' 15.577 W	
5,700.0	7.61	243.86	5,656.4	-292.4	-595.8	1,555,570.44	3,229,320.32	40° 51' 19.710 N	104° 40' 15.732 W	
5,800.0	7.61	243.86	5,755.5	-298.3	-607.7	1,555,564.49	3,229,308.48	40° 51' 19.652 N	104° 40' 15.886 W	
5,900.0	7.61	243.86	5,854.6	-304.1	-619.6	1,555,558.54	3,229,296.64	40° 51' 19.595 N	104° 40' 16.041 W	
6,000.0	7.61	243.86	5,953.7	-310.0	-631.5	1,555,552.60	3,229,284.81	40° 51' 19.537 N	104° 40' 16.196 W	
6,100.0	7.61	243.86	6,052.9	-315.8	-643.4	1,555,546.65	3,229,272.97	40° 51' 19.479 N	104° 40' 16.351 W	
6,200.0	7.61	243.86	6,152.0	-321.6	-655.3	1,555,540.70	3,229,261.13	40° 51' 19.422 N	104° 40' 16.505 W	
6,300.0	7.61	243.86	6,251.1	-327.5	-667.1	1,555,534.75	3,229,249.30	40° 51' 19.364 N	104° 40' 16.660 W	
6,400.0	7.61	243.86	6,350.2	-333.3	-679.0	1,555,528.80	3,229,237.46	40° 51' 19.306 N	104° 40' 16.815 W	
6,500.0	7.61	243.86	6,449.3	-339.1	-690.9	1,555,522.85	3,229,225.62	40° 51' 19.249 N	104° 40' 16.970 W	
6,600.0	7.61	243.86	6,548.5	-345.0	-702.8	1,555,516.91	3,229,213.78	40° 51' 19.191 N	104° 40' 17.124 W	
6,700.0	7.61	243.86	6,647.6	-350.8	-714.7	1,555,510.96	3,229,201.95	40° 51' 19.133 N	104° 40' 17.279 W	
6,800.0	7.61	243.86	6,746.7	-356.7	-726.6	1,555,505.01	3,229,190.11	40° 51' 19.076 N	104° 40' 17.434 W	
6,900.0	7.61	243.86	6,845.8	-362.5	-738.5	1,555,499.06	3,229,178.27	40° 51' 19.018 N	104° 40' 17.589 W	
7,000.0	7.61	243.86	6,944.9	-368.3	-750.4	1,555,493.11	3,229,166.44	40° 51' 18.960 N	104° 40' 17.743 W	
7,100.0	7.61	243.86	7,044.1	-374.2	-762.3	1,555,487.16	3,229,154.60	40° 51' 18.903 N	104° 40' 17.898 W	
7,200.0	7.61	243.86	7,143.2	-380.0	-774.2	1,555,481.22	3,229,142.76	40° 51' 18.845 N	104° 40' 18.053 W	
7,300.0	7.61	243.86	7,242.3	-385.8	-786.1	1,555,475.27	3,229,130.93	40° 51' 18.787 N	104° 40' 18.208 W	
7,400.0	7.61	243.86	7,341.4	-391.7	-798.0	1,555,469.32	3,229,119.09	40° 51' 18.729 N	104° 40' 18.362 W	
7,489.7	7.61	243.86	7,430.3	-396.9	-808.6	1,555,463.98	3,229,108.48	40° 51' 18.678 N	104° 40' 18.501 W	
KOP 8/100										
7,500.0	7.30	249.74	7,440.5	-397.4	-809.9	1,555,463.44	3,229,107.25	40° 51' 18.673 N	104° 40' 18.517 W	
7,600.0	8.82	308.50	7,539.7	-394.9	-821.8	1,555,465.91	3,229,095.25	40° 51' 18.698 N	104° 40' 18.673 W	
7,700.0	15.16	333.02	7,637.5	-378.4	-833.8	1,555,482.26	3,229,083.14	40° 51' 18.861 N	104° 40' 18.829 W	
7,800.0	22.57	342.58	7,732.1	-348.4	-845.5	1,555,512.16	3,229,071.16	40° 51' 19.157 N	104° 40' 18.981 W	
7,900.0	30.27	347.52	7,821.6	-305.4	-856.7	1,555,555.03	3,229,059.55	40° 51' 19.582 N	104° 40' 19.127 W	
8,000.0	38.08	350.59	7,904.3	-250.3	-867.2	1,555,610.05	3,229,048.52	40° 51' 20.126 N	104° 40' 19.264 W	
8,100.0	45.95	352.74	7,978.5	-184.1	-876.8	1,555,676.13	3,229,038.31	40° 51' 20.780 N	104° 40' 19.389 W	
8,200.0	53.85	354.39	8,042.9	-108.2	-885.3	1,555,752.00	3,229,029.09	40° 51' 21.531 N	104° 40' 19.499 W	
8,300.0	61.77	355.73	8,096.1	-23.9	-892.5	1,555,836.18	3,229,021.06	40° 51' 22.363 N	104° 40' 19.594 W	
8,400.0	69.70	356.88	8,137.2	67.0	-898.4	1,555,927.02	3,229,014.37	40° 51' 23.261 N	104° 40' 19.670 W	
8,500.0	77.64	357.92	8,165.3	162.8	-902.7	1,556,022.77	3,229,009.14	40° 51' 24.208 N	104° 40' 19.726 W	
8,600.0	85.58	358.90	8,179.9	261.6	-905.4	1,556,121.55	3,229,005.49	40° 51' 25.184 N	104° 40' 19.761 W	
8,659.5	90.31	359.48	8,182.0	321.0	-906.3	1,556,180.99	3,229,004.09	40° 51' 25.772 N	104° 40' 19.772 W	
EP 90.31 Inc, 359.48 Az										
8,700.0	90.31	359.48	8,181.8	361.5	-906.7	1,556,221.47	3,229,003.34	40° 51' 26.172 N	104° 40' 19.777 W	
8,800.0	90.31	359.48	8,181.2	461.5	-907.6	1,556,321.45	3,229,001.49	40° 51' 27.160 N	104° 40' 19.789 W	
8,900.0	90.31	359.48	8,180.7	561.5	-908.5	1,556,421.43	3,228,999.64	40° 51' 28.148 N	104° 40' 19.801 W	
9,000.0	90.31	359.48	8,180.2	661.5	-909.4	1,556,521.41	3,228,997.78	40° 51' 29.136 N	104° 40' 19.813 W	
9,100.0	90.31	359.48	8,179.6	761.5	-910.3	1,556,621.39	3,228,995.93	40° 51' 30.124 N	104° 40' 19.825 W	
9,200.0	90.31	359.48	8,179.1	861.5	-911.2	1,556,721.37	3,228,994.08	40° 51' 31.112 N	104° 40' 19.837 W	
9,300.0	90.31	359.48	8,178.6	961.5	-912.1	1,556,821.36	3,228,992.23	40° 51' 32.100 N	104° 40' 19.849 W	
9,400.0	90.31	359.48	8,178.0	1,061.5	-913.1	1,556,921.34	3,228,990.37	40° 51' 33.088 N	104° 40' 19.861 W	
9,500.0	90.31	359.48	8,177.5	1,161.5	-914.0	1,557,021.32	3,228,988.52	40° 51' 34.076 N	104° 40' 19.873 W	
9,600.0	90.31	359.48	8,177.0	1,261.5	-914.9	1,557,121.30	3,228,986.67	40° 51' 35.064 N	104° 40' 19.885 W	
9,700.0	90.31	359.48	8,176.4	1,361.5	-915.8	1,557,221.28	3,228,984.82	40° 51' 36.052 N	104° 40' 19.897 W	
9,800.0	90.31	359.48	8,175.9	1,461.5	-916.7	1,557,321.26	3,228,982.96	40° 51' 37.040 N	104° 40' 19.909 W	
9,900.0	90.31	359.48	8,175.4	1,561.5	-917.6	1,557,421.24	3,228,981.11	40° 51' 38.028 N	104° 40' 19.921 W	
10,000.0	90.31	359.48	8,174.8	1,661.5	-918.6	1,557,521.22	3,228,979.26	40° 51' 39.016 N	104° 40' 19.933 W	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 4-33-3H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 4-33-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 26Mar18 mnh		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,100.0	90.31	359.48	8,174.3	1,761.4	-919.5	1,557,621.21	3,228,977.41	40° 51' 40.004 N	104° 40' 19.945 W	
10,200.0	90.31	359.48	8,173.8	1,861.4	-920.4	1,557,721.19	3,228,975.55	40° 51' 40.992 N	104° 40' 19.957 W	
10,300.0	90.31	359.48	8,173.2	1,961.4	-921.3	1,557,821.17	3,228,973.70	40° 51' 41.980 N	104° 40' 19.969 W	
10,400.0	90.31	359.48	8,172.7	2,061.4	-922.2	1,557,921.15	3,228,971.85	40° 51' 42.968 N	104° 40' 19.981 W	
10,500.0	90.31	359.48	8,172.2	2,161.4	-923.1	1,558,021.13	3,228,970.00	40° 51' 43.956 N	104° 40' 19.993 W	
10,600.0	90.31	359.48	8,171.6	2,261.4	-924.0	1,558,121.11	3,228,968.14	40° 51' 44.944 N	104° 40' 20.005 W	
10,700.0	90.31	359.48	8,171.1	2,361.4	-925.0	1,558,221.09	3,228,966.29	40° 51' 45.932 N	104° 40' 20.016 W	
10,800.0	90.31	359.48	8,170.6	2,461.4	-925.9	1,558,321.07	3,228,964.44	40° 51' 46.920 N	104° 40' 20.028 W	
10,900.0	90.31	359.48	8,170.0	2,561.4	-926.8	1,558,421.06	3,228,962.59	40° 51' 47.908 N	104° 40' 20.040 W	
11,000.0	90.31	359.48	8,169.5	2,661.4	-927.7	1,558,521.04	3,228,960.73	40° 51' 48.896 N	104° 40' 20.052 W	
11,100.0	90.31	359.48	8,169.0	2,761.4	-928.6	1,558,621.02	3,228,958.88	40° 51' 49.884 N	104° 40' 20.064 W	
11,200.0	90.31	359.48	8,168.4	2,861.4	-929.5	1,558,721.00	3,228,957.03	40° 51' 50.872 N	104° 40' 20.076 W	
11,300.0	90.31	359.48	8,167.9	2,961.4	-930.5	1,558,820.98	3,228,955.18	40° 51' 51.860 N	104° 40' 20.088 W	
11,400.0	90.31	359.48	8,167.4	3,061.4	-931.4	1,558,920.96	3,228,953.32	40° 51' 52.848 N	104° 40' 20.100 W	
11,500.0	90.31	359.48	8,166.8	3,161.4	-932.3	1,559,020.94	3,228,951.47	40° 51' 53.836 N	104° 40' 20.112 W	
11,600.0	90.31	359.48	8,166.3	3,261.4	-933.2	1,559,120.92	3,228,949.62	40° 51' 54.824 N	104° 40' 20.124 W	
11,700.0	90.31	359.48	8,165.8	3,361.4	-934.1	1,559,220.90	3,228,947.77	40° 51' 55.812 N	104° 40' 20.136 W	
11,800.0	90.31	359.48	8,165.2	3,461.3	-935.0	1,559,320.89	3,228,945.91	40° 51' 56.800 N	104° 40' 20.148 W	
11,900.0	90.31	359.48	8,164.7	3,561.3	-935.9	1,559,420.87	3,228,944.06	40° 51' 57.788 N	104° 40' 20.160 W	
12,000.0	90.31	359.48	8,164.2	3,661.3	-936.9	1,559,520.85	3,228,942.21	40° 51' 58.776 N	104° 40' 20.172 W	
12,100.0	90.31	359.48	8,163.6	3,761.3	-937.8	1,559,620.83	3,228,940.36	40° 51' 59.764 N	104° 40' 20.184 W	
12,200.0	90.31	359.48	8,163.1	3,861.3	-938.7	1,559,720.81	3,228,938.50	40° 52' 0.752 N	104° 40' 20.196 W	
12,300.0	90.31	359.48	8,162.5	3,961.3	-939.6	1,559,820.79	3,228,936.65	40° 52' 1.740 N	104° 40' 20.208 W	
12,400.0	90.31	359.48	8,162.0	4,061.3	-940.5	1,559,920.77	3,228,934.80	40° 52' 2.728 N	104° 40' 20.220 W	
12,500.0	90.31	359.48	8,161.5	4,161.3	-941.4	1,560,020.75	3,228,932.95	40° 52' 3.716 N	104° 40' 20.232 W	
12,600.0	90.31	359.48	8,160.9	4,261.3	-942.4	1,560,120.74	3,228,931.09	40° 52' 4.704 N	104° 40' 20.244 W	
12,700.0	90.31	359.48	8,160.4	4,361.3	-943.3	1,560,220.72	3,228,929.24	40° 52' 5.692 N	104° 40' 20.256 W	
12,800.0	90.31	359.48	8,159.9	4,461.3	-944.2	1,560,320.70	3,228,927.39	40° 52' 6.680 N	104° 40' 20.268 W	
12,900.0	90.31	359.48	8,159.3	4,561.3	-945.1	1,560,420.68	3,228,925.54	40° 52' 7.668 N	104° 40' 20.280 W	
13,000.0	90.31	359.48	8,158.8	4,661.3	-946.0	1,560,520.66	3,228,923.68	40° 52' 8.656 N	104° 40' 20.292 W	
13,100.0	90.31	359.48	8,158.3	4,761.3	-946.9	1,560,620.64	3,228,921.83	40° 52' 9.644 N	104° 40' 20.304 W	
13,200.0	90.31	359.48	8,157.7	4,861.3	-947.8	1,560,720.62	3,228,919.98	40° 52' 10.632 N	104° 40' 20.316 W	
13,300.0	90.31	359.48	8,157.2	4,961.3	-948.8	1,560,820.60	3,228,918.13	40° 52' 11.620 N	104° 40' 20.328 W	
13,400.0	90.31	359.48	8,156.7	5,061.3	-949.7	1,560,920.59	3,228,916.27	40° 52' 12.608 N	104° 40' 20.339 W	
13,500.0	90.31	359.48	8,156.1	5,161.2	-950.6	1,561,020.57	3,228,914.42	40° 52' 13.596 N	104° 40' 20.351 W	
13,600.0	90.31	359.48	8,155.6	5,261.2	-951.5	1,561,120.55	3,228,912.57	40° 52' 14.584 N	104° 40' 20.363 W	
13,700.0	90.31	359.48	8,155.1	5,361.2	-952.4	1,561,220.53	3,228,910.72	40° 52' 15.572 N	104° 40' 20.375 W	
13,800.0	90.31	359.48	8,154.5	5,461.2	-953.3	1,561,320.51	3,228,908.86	40° 52' 16.560 N	104° 40' 20.387 W	
13,900.0	90.31	359.48	8,154.0	5,561.2	-954.2	1,561,420.49	3,228,907.01	40° 52' 17.548 N	104° 40' 20.399 W	
14,000.0	90.31	359.48	8,153.5	5,661.2	-955.2	1,561,520.47	3,228,905.16	40° 52' 18.536 N	104° 40' 20.411 W	
14,100.0	90.31	359.48	8,152.9	5,761.2	-956.1	1,561,620.45	3,228,903.31	40° 52' 19.524 N	104° 40' 20.423 W	
14,200.0	90.31	359.48	8,152.4	5,861.2	-957.0	1,561,720.44	3,228,901.45	40° 52' 20.512 N	104° 40' 20.435 W	
14,300.0	90.31	359.48	8,151.9	5,961.2	-957.9	1,561,820.42	3,228,899.60	40° 52' 21.500 N	104° 40' 20.447 W	
14,400.0	90.31	359.48	8,151.3	6,061.2	-958.8	1,561,920.40	3,228,897.75	40° 52' 22.488 N	104° 40' 20.459 W	
14,500.0	90.31	359.48	8,150.8	6,161.2	-959.7	1,562,020.38	3,228,895.90	40° 52' 23.476 N	104° 40' 20.471 W	
14,600.0	90.31	359.48	8,150.3	6,261.2	-960.7	1,562,120.36	3,228,894.04	40° 52' 24.464 N	104° 40' 20.483 W	
14,700.0	90.31	359.48	8,149.7	6,361.2	-961.6	1,562,220.34	3,228,892.19	40° 52' 25.452 N	104° 40' 20.495 W	
14,800.0	90.31	359.48	8,149.2	6,461.2	-962.5	1,562,320.32	3,228,890.34	40° 52' 26.440 N	104° 40' 20.507 W	
14,900.0	90.31	359.48	8,148.7	6,561.2	-963.4	1,562,420.30	3,228,888.49	40° 52' 27.428 N	104° 40' 20.519 W	
15,000.0	90.31	359.48	8,148.1	6,661.2	-964.3	1,562,520.28	3,228,886.63	40° 52' 28.416 N	104° 40' 20.531 W	
15,100.0	90.31	359.48	8,147.6	6,761.2	-965.2	1,562,620.27	3,228,884.78	40° 52' 29.405 N	104° 40' 20.543 W	
15,200.0	90.31	359.48	8,147.1	6,861.1	-966.1	1,562,720.25	3,228,882.93	40° 52' 30.393 N	104° 40' 20.555 W	
15,300.0	90.31	359.48	8,146.5	6,961.1	-967.1	1,562,820.23	3,228,881.08	40° 52' 31.381 N	104° 40' 20.567 W	
15,400.0	90.31	359.48	8,146.0	7,061.1	-968.0	1,562,920.21	3,228,879.22	40° 52' 32.369 N	104° 40' 20.579 W	
15,500.0	90.31	359.48	8,145.4	7,161.1	-968.9	1,563,020.19	3,228,877.37	40° 52' 33.357 N	104° 40' 20.591 W	



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 4-33-3H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 4-33-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 26Mar18 mnh		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
15,600.0	90.31	359.48	8,144.9	7,261.1	-969.8	1,563,120.17	3,228,875.52	40° 52' 34.345 N	104° 40' 20.603 W	
15,700.0	90.31	359.48	8,144.4	7,361.1	-970.7	1,563,220.15	3,228,873.67	40° 52' 35.333 N	104° 40' 20.615 W	
15,800.0	90.31	359.48	8,143.8	7,461.1	-971.6	1,563,320.13	3,228,871.81	40° 52' 36.321 N	104° 40' 20.627 W	
15,900.0	90.31	359.48	8,143.3	7,561.1	-972.6	1,563,420.12	3,228,869.96	40° 52' 37.309 N	104° 40' 20.639 W	
16,000.0	90.31	359.48	8,142.8	7,661.1	-973.5	1,563,520.10	3,228,868.11	40° 52' 38.297 N	104° 40' 20.651 W	
16,100.0	90.31	359.48	8,142.2	7,761.1	-974.4	1,563,620.08	3,228,866.26	40° 52' 39.285 N	104° 40' 20.663 W	
16,200.0	90.31	359.48	8,141.7	7,861.1	-975.3	1,563,720.06	3,228,864.40	40° 52' 40.273 N	104° 40' 20.675 W	
16,300.0	90.31	359.48	8,141.2	7,961.1	-976.2	1,563,820.04	3,228,862.55	40° 52' 41.261 N	104° 40' 20.687 W	
16,400.0	90.31	359.48	8,140.6	8,061.1	-977.1	1,563,920.02	3,228,860.70	40° 52' 42.249 N	104° 40' 20.698 W	
16,500.0	90.31	359.48	8,140.1	8,161.1	-978.0	1,564,020.00	3,228,858.85	40° 52' 43.237 N	104° 40' 20.710 W	
16,600.0	90.31	359.48	8,139.6	8,261.1	-979.0	1,564,119.98	3,228,856.99	40° 52' 44.225 N	104° 40' 20.722 W	
16,700.0	90.31	359.48	8,139.0	8,361.1	-979.9	1,564,219.97	3,228,855.14	40° 52' 45.213 N	104° 40' 20.734 W	
16,800.0	90.31	359.48	8,138.5	8,461.1	-980.8	1,564,319.95	3,228,853.29	40° 52' 46.201 N	104° 40' 20.746 W	
16,900.0	90.31	359.48	8,138.0	8,561.1	-981.7	1,564,419.93	3,228,851.44	40° 52' 47.189 N	104° 40' 20.758 W	
17,000.0	90.31	359.48	8,137.4	8,661.0	-982.6	1,564,519.91	3,228,849.58	40° 52' 48.177 N	104° 40' 20.770 W	
17,100.0	90.31	359.48	8,136.9	8,761.0	-983.5	1,564,619.89	3,228,847.73	40° 52' 49.165 N	104° 40' 20.782 W	
17,200.0	90.31	359.48	8,136.4	8,861.0	-984.5	1,564,719.87	3,228,845.88	40° 52' 50.153 N	104° 40' 20.794 W	
17,300.0	90.31	359.48	8,135.8	8,961.0	-985.4	1,564,819.85	3,228,844.03	40° 52' 51.141 N	104° 40' 20.806 W	
17,400.0	90.31	359.48	8,135.3	9,061.0	-986.3	1,564,919.83	3,228,842.17	40° 52' 52.129 N	104° 40' 20.818 W	
17,500.0	90.31	359.48	8,134.8	9,161.0	-987.2	1,565,019.82	3,228,840.32	40° 52' 53.117 N	104° 40' 20.830 W	
17,600.0	90.31	359.48	8,134.2	9,261.0	-988.1	1,565,119.80	3,228,838.47	40° 52' 54.105 N	104° 40' 20.842 W	
17,700.0	90.31	359.48	8,133.7	9,361.0	-989.0	1,565,219.78	3,228,836.62	40° 52' 55.093 N	104° 40' 20.854 W	
17,800.0	90.31	359.48	8,133.2	9,461.0	-989.9	1,565,319.76	3,228,834.76	40° 52' 56.081 N	104° 40' 20.866 W	
17,900.0	90.31	359.48	8,132.6	9,561.0	-990.9	1,565,419.74	3,228,832.91	40° 52' 57.069 N	104° 40' 20.878 W	
18,000.0	90.31	359.48	8,132.1	9,661.0	-991.8	1,565,519.72	3,228,831.06	40° 52' 58.057 N	104° 40' 20.890 W	
18,016.9	90.31	359.48	8,132.0	9,677.9	-991.9	1,565,536.64	3,228,830.75	40° 52' 58.224 N	104° 40' 20.892 W	
TD at 18016.9										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 3H 290' FSL, 2239' - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	1,555,868.45	3,229,913.34	40° 51' 22.600 N	104° 40' 7.978 W	
BHL 3H 600' FNL, 1340' - plan hits target center - Point	0.00	0.00	8,132.0	9,677.9	-991.9	1,565,536.64	3,228,830.75	40° 52' 58.224 N	104° 40' 20.892 W	
EP 3H 600' FSL, 1340' F - plan hits target center - Point	0.00	0.00	8,182.0	321.0	-906.3	1,556,180.99	3,229,004.09	40° 51' 25.772 N	104° 40' 19.772 W	



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Deporter 4-33-3H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Project:</b>	Sec. 4-T10N-R65W	<b>MD Reference:</b>	WELL @ 5412.0usft (Original Well Elev)
<b>Site:</b>	Deporter 4-B	<b>North Reference:</b>	True
<b>Well:</b>	Deporter 4-33-3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 26Mar18 mnh		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.0	500.0	0.0	0.0	Start Build 2.00
880.6	879.5	-11.1	-22.7	Hold 7.61 Inc, 243.86 Az
7,489.7	7,430.3	-396.9	-808.6	KOP 8/100
8,659.5	8,182.0	321.0	-906.3	EP 90.31 Inc, 359.48 Az
18,016.9	8,132.0	9,677.9	-991.9	TD at 18016.9